Amendments to the Sp cification

Please replace paragraph [0003] with the following amended paragraph:

[0003] To address this problem, aqueous mixtures of polymers or pigments are tested for the presence of the microorganisms by way of growth tests or culturing methods such as, for example, Easycult-TTC™, available from Orion Diagnostics, Finland, or by culturing the microorganisms on agar plates. Bacteria, yeasts, and fungi are measured either by standard colony counting in a growth medium or by instrumental methods, such as a microscope, turbidometer, nephelometer, and the like. Somatic cells often are counted with particle counters, such as an electro-optical particle counter, by instruments based on detecting fluorescent particles, by indirect measurement based on the quantity of a metabolic product, or by microscopy. These methods require either complex, expensive equipment or are often inaccurate because of interference from non-cellular particles or from the various additives and chemicals present in the dispersion. Further, culture or growth methods only work indirectly after addition of a culture medium and require 24 to 48 hours of incubation at elevated temperatures (approx. 35 to 37°C). These methods, therefore, suffer from the disadvantage that a long waiting period ensues between sampling and test results. In a commercial manufacturing operation, a long waiting period provides more opportunity for cross-contamination of production lots, higher inventory costs, and mistaken shipment of contaminated products. To avoid these problems, manufacturers frequently employ the preventative use of preservatives, biocides, and disinfecting agents, which are expensive and difficult to apply effectively. Such preservatives, in higher concentrations, can negatively influence the material properties of the polymeric emulsions and dispersions. In the paint, coatings, cosmetics, inks, and adhesives industries, therefore, it is important to determine promptly the level of microbial contamination of raw materials and finished products to insure quality products and prevent contamination of raw material inventories. Therefore, rapid alternatives to the conventional methods discussed above are needed.

Please replace paragraph [0004] with the following amended paragraph:

[0004] Firefly bioluminescent measurement of adenosine triphosphate, abbreviated herein as "ATP", (see for example, U.S. Patent No.'s 3,745,090 and 3,933,592) is a rapid and sensitive method for determining the number of living cells in a sample. In this method, the living cells are lysed or ruptured to release their ATP molecules which are then reacted with the reagent luciferin in the presence of oxygen, magnesium ions, and the luciferase enzyme to produce photons. The photons are detected by a photomultiplier, photodiode, or other solid state light-sensing device to produce an electric pulse output which may be directly correlated to the presence of microorganisms in the sample. The firefly bioluminescent assay has been described as a means to detect the presence of living cells in a variety of circumstances and media such as, for example, in milk, foodstuffs, urine, spinal fluid, water, beer, cosmetics, dispersions that contain polymers and pigments, and on the surfaces of countertops (see, for example, U.S. Patent No.'s 3,745,090; ~~5,736,531~~ 5,736,351; 4,303,752; 4,144,134; German Patent Application No. 196 25 137 A1; Japanese Kokai Application No. 9-121896; and Nielsen et al., *J. Assoc. Off. Anal. Chem.* (1989), **72**, 708-711. The methods thus described, however, typically rely on chemical agents, such as surfactants, to lyse or rupture the living cells to release their ATP. Chemical lysis, however, may give variable results and the lysis agent can interfere with the bioluminescent assay. In particular, bioluminescent assays using chemical lysis can be undependable for the detection of living cells in aqueous mixtures of polymers or pigments such as, for example, aqueous dispersions of paints, cosmetics, inks, and adhesives, and may not be completely trusted to give accurate results for these materials. Accordingly, a quick, sensitive, and reliable method of releasing ATP from living cells in aqueous mixtures of polymers or pigments is needed. In addition, a reliable method is needed to detect and thus avoid microbial contamination of aqueous mixtures of polymers or pigments in such products as waterborne paints, coatings, cosmetics, and adhesives.